Neomitranthes obtusa (Myrtaceae), a New Species from Espírito Santo, Brazil

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ABSTRACT. *Neomitranthes obtusa* (Myrtaceae), a treelet from restinga forests in Espírito Santo, southeastern Brazil, is described, illustrated, and compared with the apparently related *Neomitranthes glomerata*, from which it is distinguished by its obtuse leaves, inconspicuous venation, fewer secondary veins, and smaller petioles.

RESUMEN. *Neomitranthes obtusa* (Myrtaceae), un arbolito de las restingas de Espírito Santo, en el sudeste de Brasil, es descrita, ilustrada y comparada con la especie aparentemente afin *Neomitranthes glomerata*, de la cual se distingue por las hojas obtusas, la venación inconspicua, el número menor de nervios secundarios y los peciolos más cortos.

Key words: Brazil, Myrtaceae, *Neomitranthes*.

Neomitranthes was erected by Legrand (Legrand & Klein, 1977) in order to accommodate three southern Brazilian species formerly described under *Mitranthes*. The main distinction between these two genera lies in the embryo morphology: *Mitranthes* presents well-developed cotyledons and hypocotyl, which are characteristic of subtribe Myrciinae in Myrtaceae; in *Neomitranthes* the cotyledons are well developed but the hypocotyl is absent or inconspicuous, characteristic of subtribe Eugeniinae. Since then, although the independence of *Neomitranthes* is clear, its generic boundaries are far from confidently established. The genus is identified chiefly by its axillary flowers borne in racemes or dichasia that open through a calyptra. Ovaries of *Neomitranthes* have 2 locules with 2 to 6 ovules per locule, and its embryos reveal 2 distinct plano-convex cotyledons occasionally with a small hypocotyl; the wall of the locules in some species is internally pilose, a puzzling character occasionally found in other Eugeniinae such as *Eugenia* and *Hexachlamys*. All these characters except the hairy locules overlap those present in other more widespread Eugeniinae such as *Plinia* and *Siphoneugena* (Landrum & Kawasaki, 1997; Proença, 1990). *Neomitranthes* is ultimately distinguished from *Plinia* by its calyptrate calyx and the ovary with generally more than 2 ovules per locule, and from *Siphoneugena* by the persistence of a calyx tube with the staminal ring in the inner surface after anthesis.

The taxonomic value of the opening of the calyx has been severely challenged (Landrum, 1984) and can be considered at best a very weak generic character; the persistence or not of a calyx tube as a useful character has not yet been properly assessed. This situation points to an impasse in establishing definite generic boundaries; it is plausible that future studies may relegate *Neomitranthes* to synonymy either under *Plinia* or *Siphoneugena*—if not merge these three genera into one inclusive genus, in this case *Plinia*.

The number of species in *Neomitranthes* is unknown. Landrum and Kawasaki (1997) estimated fewer than 5 species, a number surely too conservative, and Mattos, in a series of papers (Mattos, 1981, 1989, 1990, 1997), attained a list of 19 species, an excessive number since some of these species are surely synonyms or are better placed in other genera (e.g., *N. maria-aemiliae* (D. Legrand) Mattos is better treated as *Myrceugenia ovalifolia* (O. Berg) Landrum and *N. hatschbachii* (D. Legrand) Mattos as *Myrceugenia gertii* Landrum; see Landrum, 1984). The species of *Neomitranthes* occur mainly in coastal forest formations from northeastern to southern Brazil, from the states of Bahia to Rio Grande do Sul.

Neomitranthes obtusa Sobral & Zambom, sp. nov. TYPE: Brazil. Espírito Santo: Guarapari, Parque Estadual Paulo César Vinha, 28 July 1998, *O. Zambom & A. Assis 338* (holotype, VIES; isotype, MBM). Figure 1.

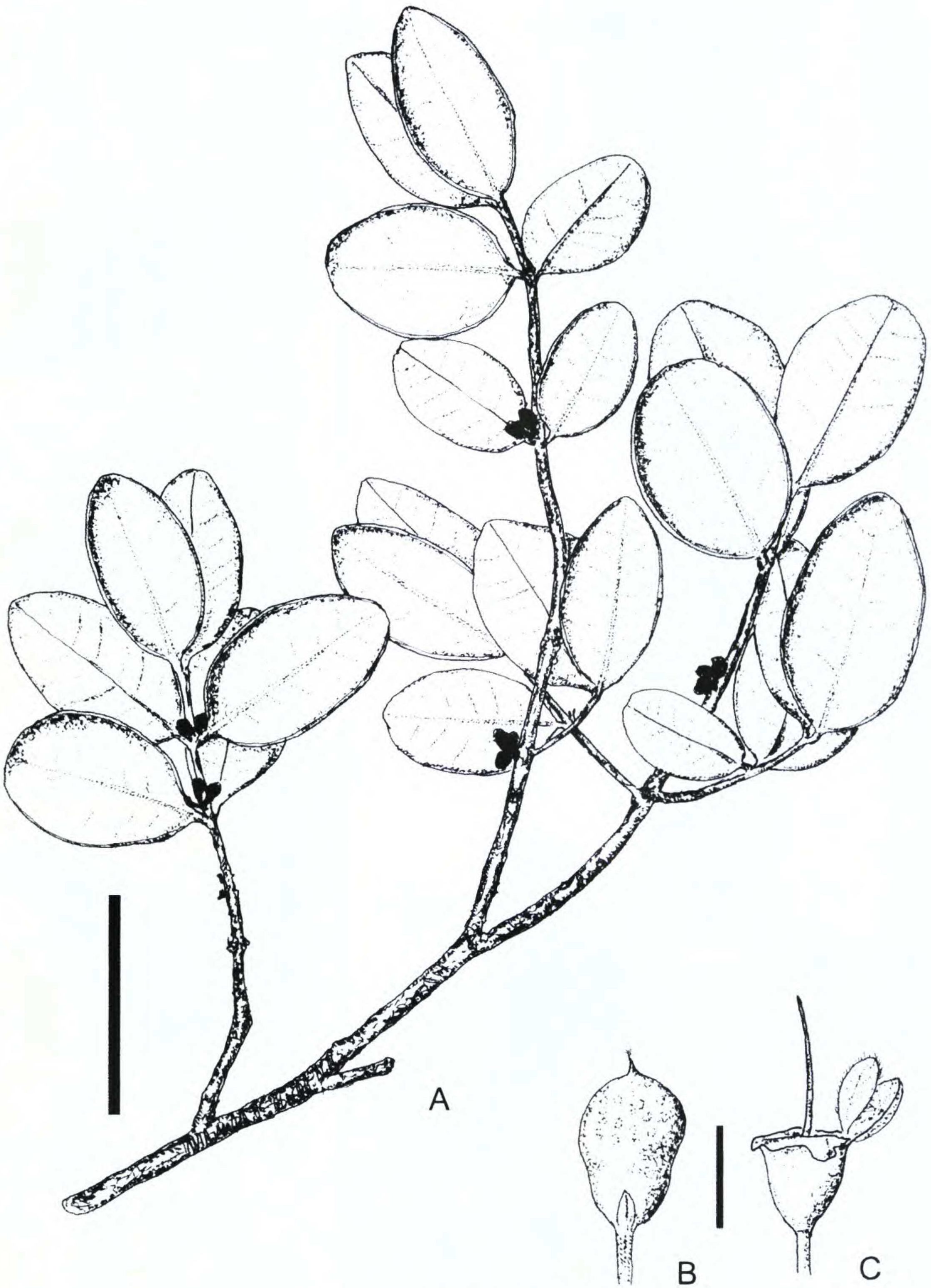

Figure 1. *Neomitranthes obtusa*. —A. Flowering branch (*Zambom & Assis 338*; drawn from isotype at MBM). —B. Closed bud (*Zambom & Assis 339*). —C. Open flower, with stamens detached and petal attached to the larger calyx lobe (*Zambom & Assis 338*). Scale bars A: 50 mm; B, C: 2 mm. Illustration by M. Sobral.

Species *N. glomeratae* proxima, a qua foliis crassis, obtusis, margine forte revoluta, nervis lateralis usque 16, inconspicuis, petiolis brevioribusque recedit.

Treelet 3–4 m high. Plants glabrous. Bark smooth, exfoliating. Leaves elliptic to elliptic-oblong, concolorous to slightly discolorous, chartaceous to coriaceous, (45)65–90 × 30–50 mm, the length/width ratio 1.5–2.5:1, sometimes slightly unequal in the same pair; apex obtuse or rounded; base obtuse or rounded, rarely the very base somewhat acute; central vein strongly convex at the adaxial surface but scarcely convex, plane, or even slightly sulcate abaxially; secondary nerves 8 to 16 pairs, scarcely evident and occasionally convex adaxially, hardly or not at all visible abaxially; marginal vein 1.2–2 mm from the margin, the margin itself strongly revolute; petioles 1.3–2 × 0.5–0.7 mm. Inflorescences axillary or ramiflorous racemes, 1.5–2 × 1 mm, 4- to 6-florous, the flowers whitish at anthesis; bracts rounded-ovate, ciliate, 0.6–0.8 × 0.6–0.7 mm; pedicels 1.3–2 × 0.6–0.7 mm; bracteoles ovate, ciliate, occasionally carinate, deciduous at anthesis, equaling the bracts; buds globose to obovate, 3–5 × 2.5–3.5 mm, apiculate, the apiculum up to 5 mm long and eventually with a tuft of hairs up to 0.1 mm long at the tip; calyx completely fused, tearing irregularly at anthesis and occasionally forming one larger, ± rounded lobe up to 2 mm diam. ("calyptra"); calyx tube 2–3 mm deep; petals absent or 1, generally adnate to the larger calyx lobe, rounded or elliptic, 1.5–3 × 1–2 mm, slightly ciliate; stamens white or creamy, about 80, up to 4 mm long; anthers globose, 0.3–0.4 × 0.3 mm; style up to 7 mm long; ovary 2(3)-locular with 1 or 2 centrally attached ovules per locule. Fruits globose, 1- or 2-seeded, 10–12 mm diam., crowned by the calyx tube, vinaceous when ripe. Seeds with testa easily detachable; embryos reniform, up to 8 × 5 mm, with 2 distinct and sometimes very unequal plano-convex cotyledons and occasionally a hypocotyl 2–2.5 × 1 mm.

Phenology. Flowers collected in June and July; fruits collected in September.

Distribution. The new species has been collected only in the municipality of Guarapari, in the state of Espírito Santo.

Ecology. *Neomitranthes obtusa* is a treelet of restinga formations (coastal forests growing on sandy soils).

Etymology. The specific epithet refers to the plant's obtuse leaves. Elsewhere in the genus, acuminate or rostrate leaves are more commonly found.

Neomitranthes obtusa is apparently related to *N. glomerata* (D. Legrand) D. Legrand, a species from southern Brazilian coastal forests ranging from São Paulo to Santa Catarina, from which it can be distinguished by the following characters:

1. Leaves with apex obtuse, margins strongly revolute; secondary nerves 8 to 16 pairs, scarcely visible on both faces, generally less evident abaxially; texture chartaceous or occasionally coriaceous; petioles up to 2 mm long; ovary with inner walls of locules glabrous; restingas of Espírito Santo . . . . . *Neomitranthes obtusa*

1′. Leaves with apex acuminate or attenuate, margins scarcely or not at all revolute; secondary nerves 20 to 25 pairs, visible on both sides, generally visible abaxially; texture at most chartaceous; petioles 5–10 mm long; ovary with inner walls of locules occasionally pilose; tall coastal forests (mata atlântica) of São Paulo to Santa Catarina . . . . . *Neomitranthes glomerata*

Paratypes. BRAZIL. **Espírito Santo:** Guarapari, Parque Estadual Paulo César Vinha, 30 July 1996, *Gomes 2192* (ICN, VIES), 9 June 1998, *Assis 500* (ICN, VIES), 28 July 1998, *Zambom & Assis 339* (MO, VIES), 9 Sep. 1999, *Assis 723* (ICN, VIES).

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